



Thinking and Learning for the 21st Century Career Technical Education Lesson

Defining how differentiation looks in today's classroom-

Differentiated instruction is a way of taking into account the needs and wants of others without relinquishing our own needs and wants, or dominating and controlling the other person. In that way, differentiated instruction is more than just a method of teaching; it is a way of being human.

-- Carol Ann Tomlinson, author and educator

The principal goal of education is to create (people) who are capable of doing new things, not simply of repeating what other generations have done.

-- Jean Piaget, cognitive psychologist

CTE Facts:

In the twenty-first century, the growing need in the workforce—of the United States and of most developed countries—will be for knowledge workers: those who analyze, evaluate, and create new knowledge within and across fields of discipline. The knowledge workers of tomorrow are the classroom students of today.

Five essential competencies of the new century are:

1. Flexibility and adaptability
2. Initiative and self-direction
3. Social and cross cultural skills
4. Productivity and accountability
5. Leadership and responsibility

Students thinking skills embedded within core subjects and twenty-first century interdisciplinary themes; these themes include:

- Global Awareness
- Financial, economic, business and entrepreneurial literacy
- Civic literacy
- Health literacy
- Environmental literacy

Concepts help students organize ideas and categorize information in a coherent fashion.

Examples of simple to multifaceted concepts are: Self, Family, Friends, Community, City, State, & Nation....

When students collaborate, they build community by working together toward a common goal. Interactions between diverse learners (whether the diversity be academic, social, or cultural) provide new opportunities for ideas to blossom and grow.

What is motivation?

A motive is “something that causes a person to act in a certain way or do a certain thing.” So motivation is “a desire to do or a drive to complete.” Achievement motivation is about striving for competence. To attain achievement motivation, students must feel and recognize their own competence.

Student Motivation and Engagement

Dr. Robert Sternberg, one of the world’s leading cognitive psychologists, has theorized a balance of intellectual abilities that he calls “successful intelligence.” According to Sternberg, when people are aware of their strengths and abilities they are more likely to use those strengths to compensate or correct their weaknesses. Also, when people are able to best use those strengths in effective ways, they are more likely to be successful in life. Successful individuals have figured out how to adapt to, shape, or select environments where their abilities and strengths are best used.

Developing Students’ Self-Regulation

Acquiring higher mental functions allows children to make a critical transition from being “slaves to the environment” to becoming “masters of their own behavior.”

--Dr. Deborah J. Leong and Dr. Elena Bodrova, psychologists

Students’ Metacognitive Skills

Metacognition is basically “thinking about your own thinking.” Doing this enables students to develop an awareness of their strengths and weaknesses.

Overcoming Barriers to Decision Making Fixed Mindset

Students with a fixed mindset believe their intelligence and abilities are fixed traits they are born with and cannot develop further. Conversely, students with a growth mindset believe that all skills and abilities can be developed through dedication and hard work. A person with a growth mindset knows that what they are born with can be cultivated and built upon. “When people believe their basic qualities can be developed, failures may still hurt, but failures don’t define them,” writes their performance through a growth mindset. They are better able to overcome negative labels, bullying, difficult situations, stereotyping, and other perceived or real barriers. This may be especially valuable for students from culturally, linguistically, socially, or economically diverse backgrounds.

Students should be willing to take risks.

Good decisions involve risk taking. Taking risks and making mistakes are actually valuable skills to be learned. Without risk and failure there is not growth; any success without risk or failure is pure luck. Everything in life requires some level of risk and there will be some chances for failure.

Risk is a natural part of life and involves some levels of fear. This is a good thing, because it shows that we are human.

Advancing Differentiation, Thinking and Learning for the 21st Century- Richard M. Cash, EdD.

